ServSwitch Panther

Welcome to the ServSwitch™ Family!

Thank you for purchasing a BLACK BOX® ServSwitch Panther! We appreciate your business, and we think you'll appreciate the many ways that your new ServSwitch Panther will save you money, time, and effort.

That's because our ServSwitch family is all about breaking away from the traditional, expensive model of computer management. You know, the one-size-fits-all-even-if-it-doesn't model that says, "One computer gets one user station, no more, no less." Why not a single user station (monitor, keyboard, and mouse) for multiple computers – even computers of different platforms? Why not a pair of user stations, each of which can control multiple computers? Why not multiple user stations for the same computer?

With our ServSwitch products, there's no reason why not. We carry a broad line of robust solutions for all these applications. Do you have just two PC's, and need an economical alternative to keeping two monitors, keyboards and mice on your desk? Or do you need to share dozens of computers, including a mix of IBM®PC, RS/6000®, Apple® Macintosh®, Sun Microsystems®, and SGI ™ compatibles among multiple users with different access levels? Does your switch have to sit solidly on a work-table and use regular everyday cables? Or does it have to be mounted in an equipment rack and use convenient many-to-one cables? No matter how large or small your set-up is, no matter how simple or how complex, we are confident we have a ServSwitch system that's just right for you.

The ServSwitch ™ family from BLACK BOX, the one-stop answer for all your KVM switching needs!

This manual will tell you about your new ServSwitch Panther, including how to install, operate, and troubleshoot it.
For an introduction to the ServSwitch Panther, see chapter 1.
The ServSwitch Panther product codes covered in this manual are:

KV1108A   KV1116A

This manual also includes information about the Server Access Modules:

KV1120A   KV1121A

FEDERAL COMMUNICATIONS COMMISSION

AND

CANADIAN DEPARTMENT OF COMMUNICATIONS

RADIO FREQUENCY INTERFERENCE STATEMENTS

This equipment generates, uses, and can radiate radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio communication. It has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart B of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when the equipment is operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user at his own expense will be required to take whatever measures may be necessary to correct the interference.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This digital apparatus does not exceed the Class A limits for radio noise emission from digital apparatus set out in the Radio Interference Regulation of the Canadian Department of Communications.

Le présent appareil numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la classe A prescrites dans le Règlement sur le brouillage radioélectrique publié par le ministère des Communications du Canada.

Trademarks

All trademarks and registered trademarks are the property of their respective owners.

Normas Oficiales Mexicanas (NOM)

Electrical Safety Statement

INSTRUCCIONES DE SEGURIDAD

1. Todas las instrucciones de seguridad y operación deberán ser leídas antes de que el aparato eléctrico sea operado.

2. Las instrucciones de seguridad y operación deberán ser guardadas para referencia futura.

3. Todas las advertencias en el aparato eléctrico y en sus instrucciones de operación deben ser respetadas.

4. Todas las instrucciones de operación y uso deben ser seguidas.

5. El aparato eléctrico no deberá ser usado cerca del agua—por ejemplo, cerca de la tina de baño, lavabo, sótano mojado o cerca de una alberca, etc.

6. El aparato eléctrico debe ser usado únicamente con carritos o pedestales que sean recomendados por el fabricante.

7. El aparato eléctrico debe ser montado a la pared o al techo sólo como sea recomendado por el fabricante.

8. Servicio—El usuario no debe intentar dar servicio al equipo eléctrico más allá a lo descrito en las instrucciones de operación. Todo otro servicio deberá ser referido a personal de servicio calificado.

9. El aparato eléctrico debe ser situado de tal manera que su posición no interfiera su uso. La colocación del aparato eléctrico sobre una cama, sofá, alfombra o superficie similar puede bloquea la ventilación, no se debe colocar en libreros o gabinetes que impidan el flujo de aire por los orificios de ventilación.

10. El equipo eléctrico deber ser situado fuera del alcance de fuentes de calor como radiadores, registros de calor, estufas u otros aparatos (incluyendo amplificadores) que producen calor.

11. El aparato eléctrico deberá ser connectado a una fuente de poder sólo del tipo descrito en el instructivo de operación, o como se indique en el aparato.

12. Precaución debe ser tomada de tal manera que la tierra física y la polarización del equipo no sea eliminada.

13. Los cables de la fuente de poder deben ser guiados de tal manera que no sean pisados ni pellizcados por objetos colocados sobre o contra ellos, poniendo particular atención a los contactos y receptáculos donde salen del aparato.

14. El equipo eléctrico debe ser limpiado únicamente de acuerdo a las recomendaciones del fabricante.

15. En caso de existir, una antena externa deberá ser localizada lejos de las lineas de energia.

16. El cable de corriente deberá ser desconectado del cuando el equipo no sea usado por un largo periodo de tiempo.

17. Cuidado debe ser tomado de tal manera que objectos liquidos no sean derramados sobre la cubierta u orificios de ventilación.

18. Servicio por personal calificado deberá ser provisto cuando:

    A: El cable de poder o el contacto ha sido dañado; u

    B: Objectos han caído o líquido ha sido derramado dentro del aparato; o

    C: El aparato ha sido expuesto a la lluvia; o

    D: El aparato parece no operar normalmente o muestra un cambio en su desempeño; o

    E: El aparato ha sido tirado o su cubierta ha sido dañada.

EUROPEAN UNION DECLARATION OF CONFORMITY

This equipment has been tested and found to comply with the limits for a Class A computing device in accordance with the specifications in the European standard EN55022. These limits are designed to provide reasonable protection against harmful interference. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio or television reception.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio and television reception, which can be determined by turning the equipment off and on, you can correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.

2. Increase the separation between the equipment and receiver.

3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

4. Consult the supplier or an experienced radio/TV technician for help.

Shielded cables must be used with this equipment to maintain compliance with radio frequency energy emission regulations and ensure a suitably high level of immunity to electromagnetic disturbances. This equipment has also been found to comply with European standard EN 55024.

Japanese Compliance Statement

この装置は、情報処理装置等電波障害自主規制協議会（ＶＣＣＩ）の基準に基づくクラスＡ情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

CB TEST CERTIFICATE

This product was tested and found to be in conformity with:

IEC 60950 (2001) for Interference by Information Technology Equipment aimed at preventing radio interference in such residential areas. When used near a radio or TV receiver, it may become the cause of radio interference. Read instructions for correct handling.

Contents

1. Introduction

Access and control multiple multi-platform computers from one Keyboard Video Mouse (KVM) console with the ServSwitch Panther system. The ServSwitch Panther comes in 8 and 16 port models. Connect up to 8 computers to the 8 port model, and up to 16 to the 16 port model.

1.1 Features

- Hot-Swap - disconnect and reconnect computers without rebooting

- Scan-mode operation with variable time interval

- 1U Rack mountable

- Operate the system using an On Screen Display (OSD) or front panel push buttons or keyboard hotkeys

- Create multi-level cascade arrangements. For example by cascading the ServSwitch Panther 16 Port model, connect up to up to 256 computers in the system

- The computers can be placed up to 33ft/10m from the ServSwitch Panther

- Multi-platform — supports PS/2 and USB computers/servers

1.2 Compatibility

The ServSwitch Panther is compatible with:

- PS/2 and USB computers/servers

- VGA, SVGA, or XGA monitors

- DOS, Windows (3X, 9X, 2000, NT4, ME, XP, 2003 Server) LINUX, UNIX, QNX, SGI, FreeBSD, BeOS, Open VMS, Novell 3.12-6, Alpha UNIX and HP UX

2. Complete package

The ServSwitch Panther system comes with:

- ServSwitch Panther 8 Port (KV1108A) or 16 port (KV1116A)

- Flash Upgrade cable (KV11UP)

- USA and European power cords

- Rack mount kit for the ServSwitch Panther (KV11RM)

2.1 Additional items needed

1 Server Access Module (SAM) and CAT5 cabling per attached server or switch.

The SAMs come in two different models:

- SAM PS/2 (KV1120A) for PS/2 servers

- SAM USB (KV1121A) for USB servers

3. Installation

3.1 The ServSwitch Panther system configuration

Figure 1 illustrates the basic configuration of the ServSwitch Panther system.
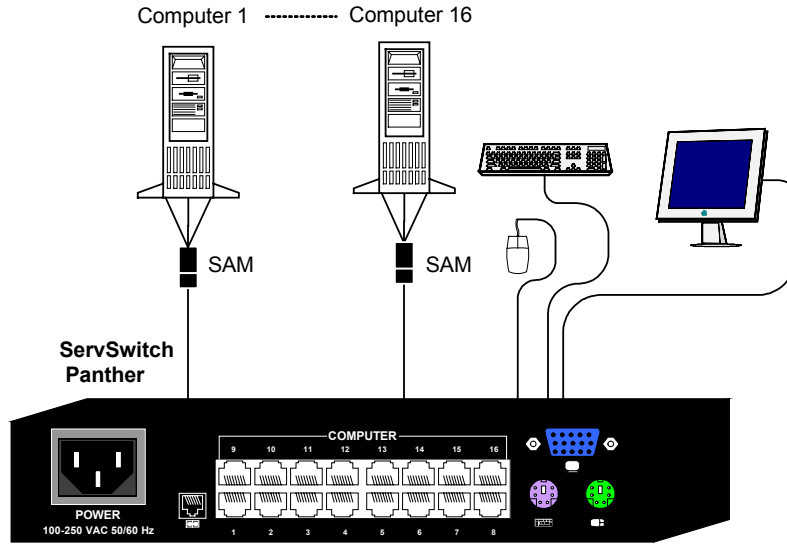
Figure 1 The ServSwitch Panther system configuration

3.2 The ServSwitch Panther models

Figure 2 illustrates the front panel of the ServSwitch Panther 16 port model. The 8 port model is the same but with only 8 columns of LEDs.

Figure 2 ServSwitch Panther front panel

The figure below illustrates the rear panel of the ServSwitch Panther 16 port unit. The 8 port model is the same but with only 8 Computer ports.
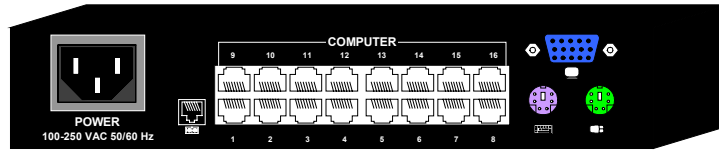
Figure 3 ServSwitch Panther 16 port rear panel

3.3 Pre-installation guidelines

- Switch off all computers

- Place cables away from fluorescent lights, air conditioners, and machines that are likely to generate electrical noise

- Ensure that the maximum distance between each computer and the ServSwitch Panther, does not exceed 33ft/10m

3.4 Connecting the ServSwitch Panther system

Connect each computer to the ServSwitch Panther system using the appropriate SAM and CAT5 cables. Figure 4 illustrates the ServSwitch Panther system connections with the appropriate SAM connected to a PS/2 and USB computer/server.
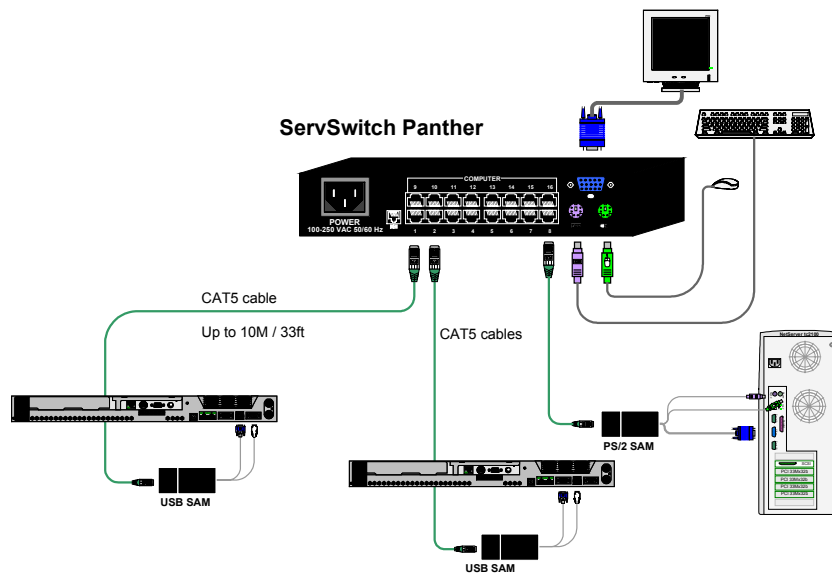
Figure 4 ServSwitch Panther system connections

3.5   The SAMs

The SAMs draw their power from the computer's keyboard port (SAM PS/2) or from the USB port (SAM USB).

3.5.1 Connecting a PS/2 SAM

Figure 5 illustrates the SAM.

To connect the PS/2 SAM:

1. Connect the Screen connector to the computer's Video card.

2. Connect the Keyboard connector to the computer's Keyboard port.

3. Connect the Mouse connector to the computer's Mouse port.
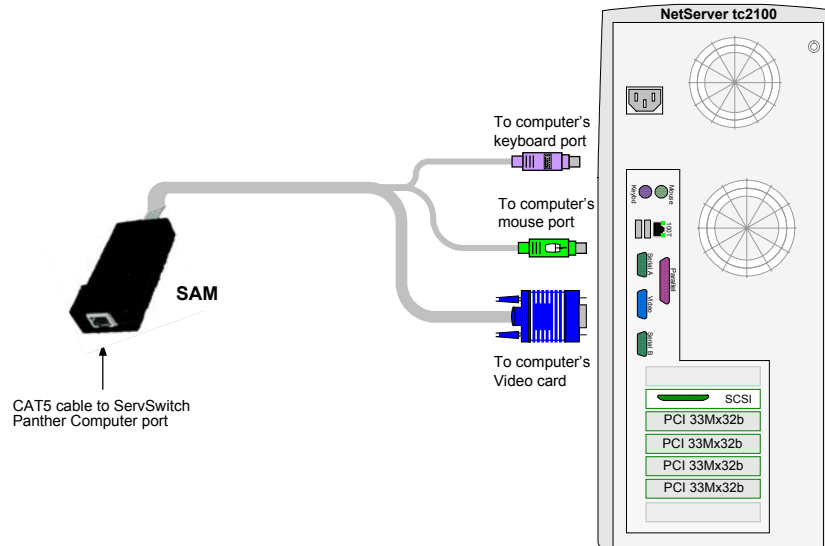
Figure 5 PS/2 SAM

3.5.2 Connecting a USB SAM

The SAM USB supports Windows 2000 and later, and SGI. Figure 6 illustrates the USB SAM and its connections.

To connect the USB SAM:

1. Connect the Screen connector to the computer's Video card.

2. Connect the USB connector to the computer's USB port.
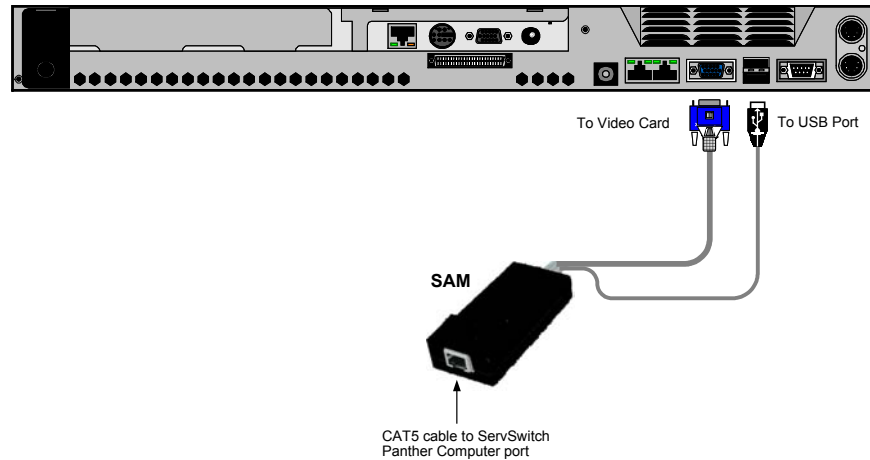
Figure 6 USB SAM

3.6 Connecting the CAT5 cables

1. Connect one connector to the SAMs RJ45 port.

2. Connect the other connector to one of the ServSwitch Panther's Computer ports.

3. Follow the above 2 steps for each computer.

3.7 Connecting the KVM console

To connect a KVM console to the ServSwitch Panther:

1. Connect the monitor's connector to the ServSwitch Panther's Monitor port.

2. Connect the keyboard's connector to the ServSwitch Panther's Keyboard port.

3. Connect the mouse's connector to the ServSwitch Panther's Mouse port.

3.8 Connecting the power supply

1. Connect the ServSwitch Panther to the power supply using the Power cable provided. Use only power cord supplied with the unit.

2. Switch on the computers.

3.9 Resetting the Switch

To reset the Switch press the 2 front panel Select buttons simultaneously. The SAMs are unaffected by this reset.

Resetting can also be performed through the software – explained later.

3.10 Avoiding general rack mounting problems

3.10.1 Elevated operating ambient temperature

The operating ambient temperature of the rack environment may be greater than the room ambient when installing into a closed or multi-unit rack assembly. So install the equipment in an environment compatible with the maximum rated ambient temperature.

3.10.2 Reduced airflow

Install the equipment in a rack in such a way that the amount of airflow required for safe operation is not compromised.

3.10.3 Mechanical loading

Mount the equipment in the rack in such a way that a hazardous condition is not achieved due to uneven mechanical loading.

3.10.4 Circuit overloading

When connecting the equipment to the supply circuit, consider the effect that overloading of circuits might have on over-current protection and supply wiring.

Reliable earthing of rack-mounted equipment should be maintained. Give attention to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

3.11 Rack mounting the ServSwitch Panther

Length of the screws used for connection of the bracket to the ServSwitch Panther unit shall not exceed 5 mm.

Use the L-shaped brackets and screws provided to mount the ServSwitch Panther on a server rack as illustrated below.

Figure 7 Connecting the L-shaped bracket

3.12 Cascading ServSwitch Panthers

To cascade 2 or more ServSwitch Panthers follow the connections as illustrated in the figure below.

Setting the different OSD display hotkeys is explained on page 19 below.
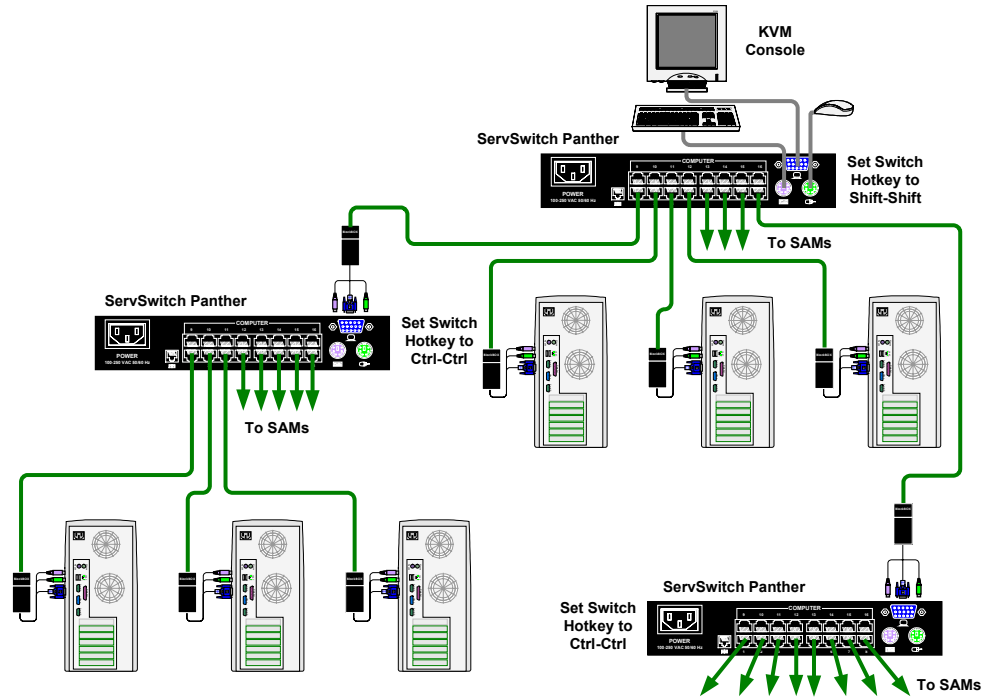
Figure 8 Cascading ServSwitch Panthers

4. Operating the system

Switch between the connected computers by either

- The front panel Select buttons
- Keyboard hotkeys
- The OSD (On Screen Display)

The OSD is also the place to adjust various settings as explained below.

When switching computers the illuminated LED of the top bank indicates which computer is currently selected.

4.1 The keyboard hotkeys

To switch to the next computer forwards press **Shift** then, +. Release **Shift**, before pressing +.

To switch to the next computer backwards press **Shift** then, -. Release **Shift**, before pressing -.

Note

With a US English keyboard you can use the **+** key of the alphanumeric section or of the numeric keypad. With a Non-US English keyboard only use the **+** key of the numeric keypad.

4.2 The OSD

To display the OSD:

Press **Shift** twice. The OSD Main window appears. See Figure 9. Lines with blue text show active computers. Lines with grey text show inactive computers.

The Type column indicates whether a computer "C" or another switch "S" is connected to the port.

Figure 9 The OSD Main window

4.3 Navigating the OSD

To navigate up and down use the Up and Down arrow keys.

To jump from one column to the next (when relevant) use the Tab key.

To exit the OSD or return to a previous window within the OSD press **Esc**.

4.4 Selecting a computer

To select a computer:

1. Navigate to the desired computer line.

2. Press **Enter**. The selected computer is accessed. A confirmation label appears showing which computer is accessed.

Note

When the OSD is displayed you cannot select computers using the front panel Select buttons or the keyboard hotkeys.

4.5 The OSD settings (F2)

Press **F2**. The OSD Settings window appears see Figure 10.
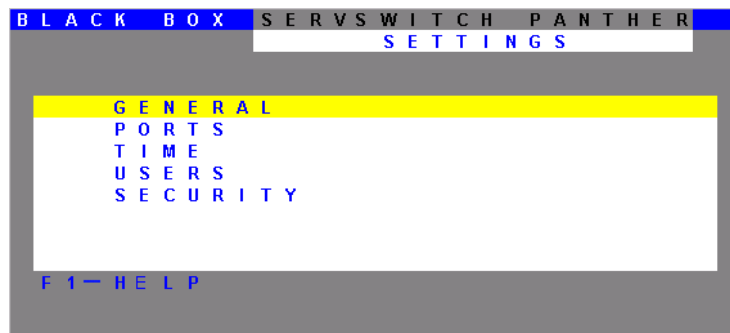
Figure 10 The Settings window

Note
When the OSD is password protected (explained below) only the Administrator has access to the F2 settings window.

4.6 The General settings

With the blue line on the word GENERAL, press **Enter**. The General settings window appears see Figure 11.

```
B L A C K   B O X   S E R V S W I T C H   P A N T H E R
                    G E N E R A L   S E T T I N G S


    S E C U R I T Y                    O N
    H O T K E Y                        S H — S H
    A U T O S K I P                    O N
    S E R I A L   P O R T              O N
    K E Y B O A R D   L A N G U A G E  E N

    S W I T C H   N A M E
    S E R V E S W I T C H   P A N T H E R
F 7 — D E F A U L T S
```
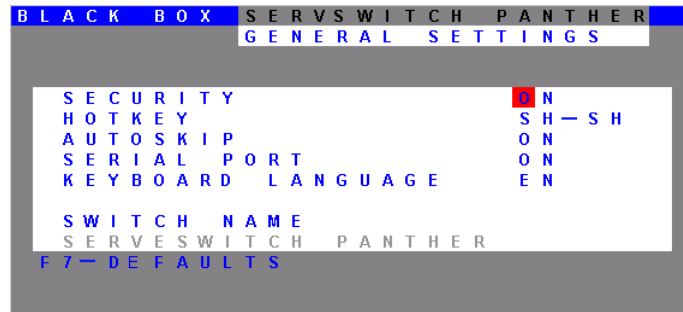
Figure 11 The General Settings window

From this window you can do the following:

4.7 Security

The OSD comes with an advanced password security system that contains 3 different security levels. Each security level has different access rights to the system.

These levels are as follows:

4.7.1 Administrator (Status A)

The Administrator can:

- Set and modify all Passwords and security profiles

- Fully access any computer

- Use all OSD functions

4.7.2 Supervisor (Status S)

The Supervisor can:

- Fully access any computer

- Access the following OSD functions only –**F4** Scan, **F5** Tune and **F6** Moving the Confirmation label.

4.7.3 User (Status U)

There are 6 different Users in the ServSwitch Panther system. Each User has a Profile set by the Administrator that defines the access level to different computers. There are 3 different access levels, these are explained on page 23.

4.7.4 Activating password protection

By default OSD access is not password protected. Only the Administrator can password-protect the OSD or disable password protection.

To do so:

1. In the General settings window navigate to the Security line.

2. Press the Space bar to toggle between Security On and Off. The password box appears.

3. Type the Administrator's password (default is "admin").

4. Press **Enter**. The new security status is set.

4.8 Changing the OSD hotkey

By pressing **Shift**, **Shift** the OSD appears. You can replace **Shift**, **Shift** with any of the following:

*   Ctrl, Ctrl

*   Ctrl, F11

*   Print Screen

To change the hotkey:

1. Navigate to the Hotkey line.

2. Press the Space bar to toggle between options. To display the OSD in future press the new hotkey.

4.9 Autoskip

With the Autoskip feature, the arrow keys only access the active computer lines on the OSD. When Autoskip is Off, The arrow keys access both active and inactive computer lines.

To change the Autoskip setting:

1. Navigate to the Autoskip line.

2. Toggle between the options using the Space bar.

4.10 Serial port

The Serial port is used for upgrading the firmware. Serial port On means the upgrade program can be used.

To change the Serial port setting:

1. Navigate to the Serial port line.
2. Toggle between the options using the Space bar.

4.11 Changing the Keyboard language

The keyboard is preset to US English, this can be changed to French (FR) or German (DE), as follows:

1. Navigate to the Keyboard language line.
2. Toggle between the options using the Space bar.

4.12 Editing the Switch name

You can substitute up to 18 characters in the line. A space constitutes a character. When there is more than one switch in the system give each Switch's OSD a different name.

4.13 F7 Defaults

Press F7 to return the OSD to the factory default settings.

Note

All changes made will be removed.

4.14 The Ports settings

In the Settings window navigate to the Ports line and press **Enter**. The Ports settings window appears see Figure 12.

```
BLACK     BOX    SERVSWITCH   PANTHER
                 PORTS   SETTINGS

        NAME                        KB    HKEY
0 1     COMPUTER    0 1             P S   N O
0 2     COMPUTER    0 2             U 1   N O
0 3     SWITCH      0 3             P S   C L F 1 1
0 4     COMPUTER    0 4             P S   N O
0 5     COMPUTER    0 5             U 2   N O
0 6     COMPUTER    0 6             U 3   N O
0 7     COMPUTER    0 7             P S   N O
0 8     COMPUTER    0 8             P S   N O
```

Figure 12 Ports Settings window

4.15 Editing the computer name

In this window you can edit the computer names with up to 15 characters.

To erase a character:

Select it and press the **Space bar**. Blank spaces remain in place of the erased character.

To erase an entire line:

Place the cursor at the beginning of the line. Keep the **Space bar** depressed until the line is erased.

4.16 Keyboard (KB)

The ServSwitch Panther operates with Windows, Linux, HP UX, Alpha UNIX SGI, DOS, Novell, USB or Open VMS.

By default the keyboard mode is set to PS for Intel based computers.

For the other systems set the KB column as follows:

- U1 for HP UX
- U2 for Alpha UNIX, SGI, Open VMS

4.17 Adding/changing a hotkey (HKEY)

Cascade the ServSwitch Panther by connecting another ServSwitch Panther to a Computer port instead of a computer, and then connecting more SAMs to the second Switch. Connect a third and fourth Switch in the same way. With the ServSwitch Panther 16 Port model, connect up to up to 256 computers through cascading.

You must define a hotkey to display the OSD of each Switch. These hotkeys must be different for the top and bottom layers. The hotkeys can be any of the choices as set out above on page 19.

To add/change a hotkey:

1. On the line to which the Switch is connected, press Tab to jump to the HKEY column.

2. Toggle between the options using the Space bar.

4.18 The Time settings

In the Settings window navigate to the Time line and press **Enter**. The Time settings window appears see Figure 13.

Figure 13 Time settings window

4.19 Scan (SCN) - Label (LBL) - Time out (T/O)

SCN - In the **SCN** column, change the scan period.

LBL - In the **LBL** column, change the display period of the OSD label showing which computer is currently accessed.

T/O - When password protection is activated you can automatically disable the Management keyboard, mouse and screen after a preset time of non-use. Set this Timeout period in the **T/O** column.

To set the above periods:

1. On the desired line press Tab to jump to the desired column.

2. Place the cursor over one of the 3 digits and type a new number. Enter a leading zero where necessary. For example, type 040 for 40 seconds.

   Typing 999 in the **LBL** column displays the label continuously. Typing 000 – the label will not appear.

   Typing 999 in the **T/O** column disables the Timeout function. Typing 000 – the Timeout function works immediately.

   Typing 999 in the **SCN** column displays the screen for 999 seconds. Typing 000 – the computer screen is skipped.

4.20 Users

In the Settings window navigate to the Users line and press **Enter**. The Users settings window appears see Figure 14.

Figure 14 The Users settings window

There are 3 different access levels. These are:

- Y – Full access to a particular computer. Plus access to the **F4**, **F5** and **F6** OSD functions

- V –Viewing access only, to a particular computer (No keyboard/mouse functionality)

- N – No access to a particular computer – A TIMEOUT label appears if access is attempted

To give each user the desired access level:

1. Navigate to the desired computer line and User.

2. Toggle between the options using the Space bar.

4.21 Security

In the Settings window navigate to the Security line and press **Enter**. The Security settings window appears see Figure 15.

Figure 15 The Security settings window

The 'T' column on the right hand side stands for Type of password.

There can only be 1 Administrator password, 1 Supervisor password, and 6 User passwords.

To change a user name or password:

1. Navigate to the desired line and column.

2. Type a new user name / password. User authentication is done solely via the password there is no security significance to the names.

By default the User Profile settings are full access.

4.22 The OSD HELP window – F1

To access the HELP window press F1. The HELP window appears, see Figure 16.

```
B L A C K   B O X    S E R V S W I T C H    P A N T H E R
                         H E L P


     S C A N                              F 4
     T U N E                              F 5
     M O V E    L A B E L                 F 6
     N E W   M O N I T O R — D D C 2       F 1 0
     M O V E    U P — D O W N              ▲    ▼
     S E L E C T    C O M P U T E R        E N T E R
     C H O O S E    O P T I O N            S P A C E
     N E X T    C O L U M N                T A B
     E X I T                               E S C
```
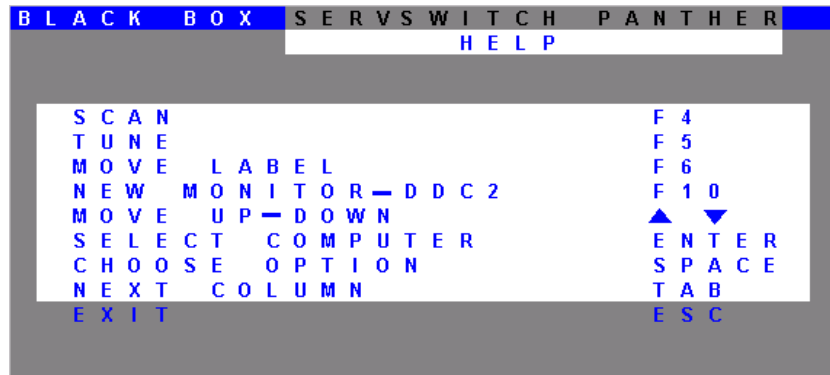
Figure 16 The HELP window

Note

All the functions set out in the Help window are performed from the Main window. The Help window is merely a reminder of the hotkeys and their functions.

4.23 Scanning computers– F4

Where necessary adjust the scan time in the Time Settings window, see above.

To activate scanning:

1. Press Shift twice to open the OSD.

2. Press **F4**. Your screen displays each active computer sequentially, with the Scan label appearing in the top left corner.

To deactivate scanning:

Press **F4**.

4.24 Tuning – F5

You can tune the image of any remote computer screen from the Select Computer window.

To adjust the screen image:

1. Navigate to the remote computer you wish to adjust.

2. Press **F5**. The screen image of the selected computer appears, together with the Image Tuning label.

3. Adjust the image by using the **Right** and **Left** Arrow keys.

4. When the image is satisfactory, press **Esc**.

Note

Picture quality is relative to distance. The further away a remote computer is from the ServSwitch Panther, the lower the image quality, and the more tuning needed. So place the higher resolution computers closer to the manager unit.

4.25 Moving the label – F6

Position the OSD label anywhere on the screen.

To position the label from the Main window:

1. Navigate to the desired computer using the **Up** and **Down** arrow keys.

2. Press **F6**. The selected screen image and Identification label will appear.

3. Use the arrow keys to move the label to the desired position.

4. Press **Esc** to save and exit.

5. Troubleshooting

5.1 Calling Black Box

If you determine that your ServSwitch Panther is malfunctioning, *do not attempt to alter or repair i*t. It is not user-serviceable. Contact Black Box Technical Support at 724-746-5500.

Before you do, make a record of the history of the problem. We will be able to provide more efficient and accurate assistance if you have a complete description, including:

- The nature and duration of the problem;

- When the problem occurs;

- The components involved in the problem;

- Any particular application that, when used, appears to create the problem or make it worse; and

- The results of any testing you've already done.

5.2 Shipping and Packaging

If you need to transport or ship your ServSwitch Panther:

- Package it carefully. We recommend that you use the original container.

- If you are returning the unit, include everything you received with it. Before you ship a unit back to Black Box for repair or return, contact us to get a Return Authorization (RA) number.

6. Upgrading the firmware

You can download the ServSwitch Panther Update software and the latest ServSwitch Panther firmware from our Web site:

www.blackbox.com

With the ServSwitch Panther Update software program you can upgrade the firmware for the:

- OSD

- Manager

- SAMs

6.1 System requirements for the ServSwitch Panther Update software

- Pentium 166 or higher with 16 MB RAM and 10 MB free Hard Drive space.

- Free Serial port.

- Windows 98 and later.

6.2 Connect the ServSwitch Panther System

To update the firmware the ServSwitch Panther system must be connected and switched on.

6.3 Installing the software

You can install the ServSwitch Panther Update on any computer, even one not part of the ServSwitch Panther system. Once you have downloaded the Update software from our Web site install it on the computer's hard drive.

6.4 Connecting the Flash Upgrade cable

To run the software, connect the Flash Upgrade cable to the computer containing the software, and to the ServSwitch Panther. See Figure 17.

Computer screens
appear here

ServSwitch Panther

POWER
100-250 VAC 50/60 Hz

COMPUTER

To Service
connector

**Flash Upgrade
cable**

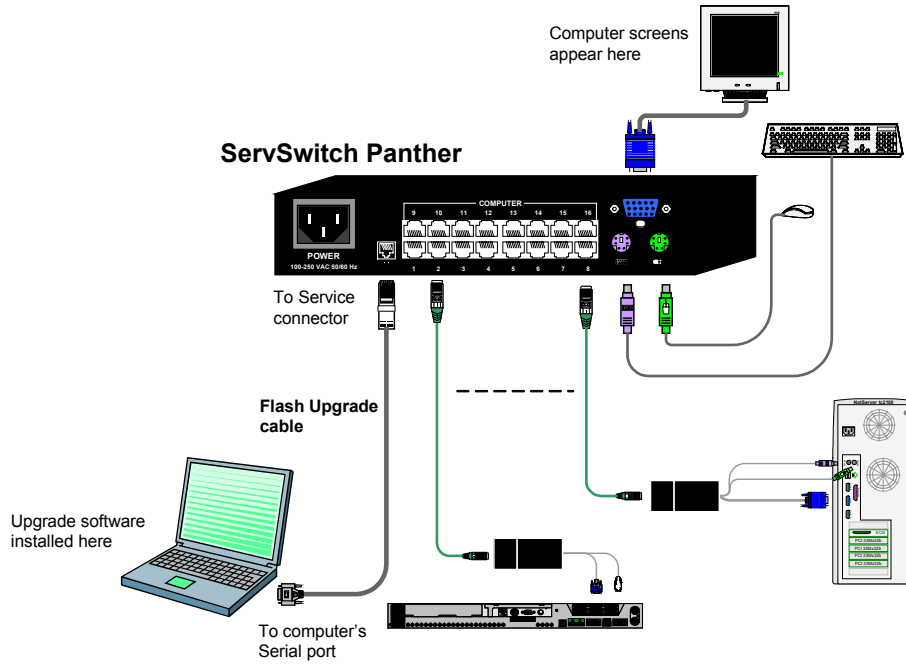Upgrade software
installed here

To computer's
Serial port

Figure 17 Connecting the Flash Upgrade cable

6.5   Starting and configuring the ServSwitch Panther Update

1. Start the ServSwitch Panther Update software. The ServSwitch Panther Update
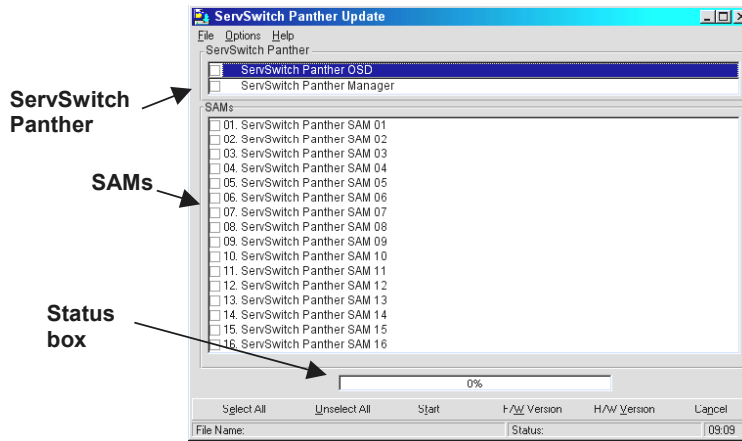   window appears. See

ServSwitch
Panther

SAMs

Status
box

Figure 18 The ServSwitch Panther Switch Update window

The table below explains the functions of the buttons and boxes in the ServSwitch Panther Switch Update window.

Button or Box	Function
Select All	Selects all SAMs
Unselect All	Unselects selected SAMs
Start	Starts firmware download
F/W Version	Displays the firmware version number
H/W Version	Displays the hardware version number
Cancel	Cancels selected function
10:06	System time
Status:	Displays download status
File Name:	Name of Update file

2. From the Options menu choose Com Port. The Com Port box appears.
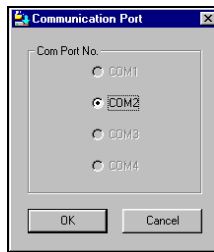
    See Figure 19.

Figure 19 The Com Option box

3. Choose an available Com Port and click OK.

Note! The Flash Upgrade cable must be connected to the selected Serial port.

6.6   Verifying the version numbers

Before upgrading the firmware, you must first verify which firmware and hardware versions you have.

6.6.1 The OSD version number

To verify the OSD version number:

1.   In the ServSwitch Panther box – see Figure 18 – check the OSD option.

2.   Click F/W Version . The version number appears in the ServSwitch Panther box.

The H/W Version button is grayed out, as there is no hardware relevant to the OSD.

6.6.2 The ServSwitch Panther version number

To verify the ServSwitch Panther version number:

1.   In the ServSwitch Panther box– see Figure 18 – check the **ServSwitch Panther Manager** option**.**

2.   Click F/W Version . The firmware version number appears in the ServSwitch Panther box.

3.   Click H/W Version . The hardware version number appears in the ServSwitch Panther box.

6.6.3 Verifying the SAM version number

Before you can check a SAM, you must uncheck the ServSwitch Panther box options.

To verify the SAM version number:

1.   Check one or more or all of the SAMs.

2.   Click F/W Version . The firmware version number appears after the SAM number.

3.   Click H/W Version . The hardware version number appears after the SAM number.

When "**Not responding**" appears, there is no computer connected, or it is switched off.

6.7   Updating the firmware

Caution

Never switch off any computer connected to the ServSwitch Panther system during the updating process.

To update the firmware:

1. In the ServSwitch Panther Update window, check the appropriate option in the ServSwitch Panther box or the desired SAM.

2. From the **File** menu, choose **Open**. The **Open** box appears. See Figure 20.

3. Find the folder that contains the firmware update file. You may only see the files that match the file selection mask.
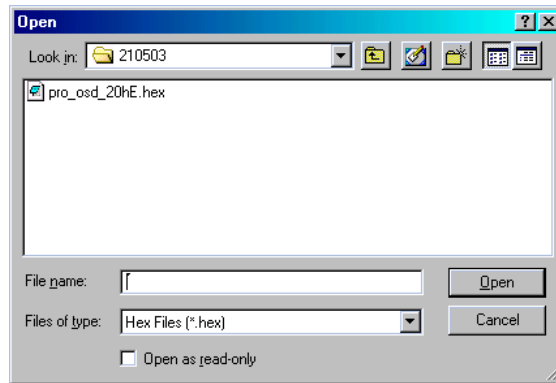

Figure 20 The Open box

4. Open the file.

5. Click **Start**. The ServSwitch Panther Update flashes the firmware. On completion the firmware version number appears.

6. Check that the updated version number is correct by pressing F/W Version .

Firmware Update generates one log file per session that displays a chronological list of actions. You can read the log file in any ASCII text editor. The log file is located in the Windows directory.

6.7.1 Communication Error

When using the firmware Update software you may sometimes get a Communication Error message.

When updating a unit and a Communication Error message appears, do the following:

1. Check that the Flash Upgrade cable's RS232 connector is connected to the Switch's Service connector.

2. Check that the Flash Upgrade cable's DB9F connector is connected to the computer's DB9M Serial port.

3. Restart the download process.

6.7.2 Electricity failure

When the electricity fails while updating the ServSwitch Panther firmware, a **Communication Error** message appears.

Simply resume the firmware update by opening the folder that contains the firmware update file and continue from there.

When the electricity fails during the firmware update of the SAMs a **Not Responding** or **Upgrade Error** message appears.

Restart the upgrade from the beginning.

6.8 Reset

Reset the software for the ServSwitch Panther Manager or SAMs when for example the unit hangs or when the mouse fails to work properly. Resetting is done via the Serial port, and avoids the need to shut down the computer.

Note

The Reset function does not affect the parameters of the unit settings.

6.8.1 Resetting the Switch or SAM units

To reset the ServSwitch Panther or SAMs:

1. For the ServSwitch Panther, check the ServSwitch Panther Manager in the ServSwitch Panther box.

    For the SAMs, check one or more SAMs in the SAMs box.

2. From the **Options** menu choose **Advanced** / **Reset**. The units reset. The system should now be operational.

7. Technical specifications

Operating Systems	DOS, Windows (3X, 9X, 2000, NT4, ME, XP, 2003 Server) LINUX, UNIX, QNX, SGI, FreeBSD, BeOS, Open VMS, Novell 3.12-6, Alpha UNIX and HP UX
Mouse	PS/2, Wheel mouse, Intellimouse, 5-button mouse
Resolution	1600x1200@75Hz
Transmission distance	Up to 33ft / 10m

ServSwitch Panther	
Dimensions – 8/16 port	8.46 x 4.80 x 1.63in / 215.0 x 122.0 x 41.5mm
Weight – 8/16 port	Product – 2lbs / 920g
	Shipping – 4.1lbs / 1.87Kg
Power supply – 8/16 port	Internal switching 85-260 VAC 50 / 60 Hz
Connections	
System	RJ45
Serial	RJ11
Local KVM	HDD15/MinDin6/MiniDin6
Operating / Recommended ambient temperature	32ºF to 104ºF / 0ºC to 40ºC
Storage temperature	-40ºF to 158ºF / -40ºC to 70ºC
Humidity	80% non-condensing relative humidity

SAMs	PS/2	USB
Connections		
VGA	HDD15	HDD15
Keyboard/Mouse	MiniDin6	USB
System	RJ45	RJ45
Power	From computer's Keyboard port	From USB port
Product weight	0.23lb / 107g	
Shipping weight	0.66lb / 300g	
Dimensions	3.58 x 1.61 x 0.94in / 91 x 41 x 24mm	

Black Box Technical Support

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